

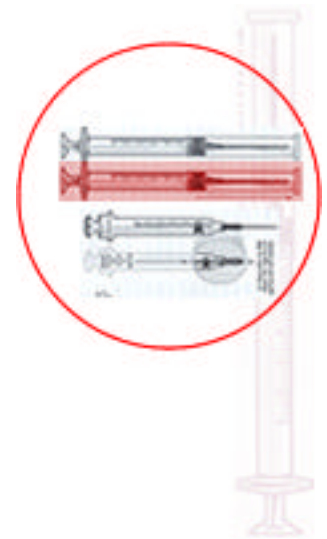
NIOSH recommends that health care facilities use safer medical devices to protect workers from needlestick and other sharps injuries. Since the passage of the Needlestick Safety and Prevention Act in 2000 and the subsequent revision of the OSHA Bloodborne Pathogen Standard, all health care facilities are required to use safer medical devices.



SAFER MEDICAL DEVICE IMPLEMENTATION IN HEALTH CARE FACILITIES

SHARING LESSONS LEARNED

NIOSH has asked a small number of health care facilities to share their experiences on how they implemented safer medical devices in their settings. These facilities have agreed to describe how each step was accomplished, and also to discuss the barriers they encountered and how they were resolved, and most importantly, lessons learned.



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This skilled nursing residence is a 139 bed teaching nursing home. We are located on a university campus and serves as a clinical practice site for nursing students, as well as other students including, physical therapy and occupational therapy students, dietitian students, social work students and clinical pastoral education students. We operate three distinct units; a 39 bed Medicare Unit, a 31 bed Dementia Unit, and a 69 bed long term care unit.

Safe Medical Devices Project

Phase Four

1. Describing the Process

Our process was to identify priorities and determine the medical devices that would have the greatest impact on preventing occupational exposure.

The three main areas of consideration were:

- Needle stick injury patterns
- Safer medical devices currently in use
- OSHA regulatory requirements

At the beginning of the study, staff felt strongly that the issues were related to disposal. Housekeepers agreed that needle disposal seemed to be a problem. They all agreed that more sharps disposal containers were needed. It was determined by the committee that the study will focus on the sharps disposal containers as the safer medical device.

As noted in Phase Three, the vendor provided the facility with a variety of sharps containers for review. The committee reviewed these devices and chose a sharps container which is top loading and also includes a latex glove holder underneath. The group felt that space is always a consideration in resident rooms and the combination of the glove dispenser and the sharps container in one unit was desirable.

The purchasing agent ordered 18 sharps disposal devices (1 each per 18 rooms) on the Medicare Unit. The sharps disposal devices were received and installed. The licensed nursing staff on the Medicare Unit were the staff to use the device. Primarily, this consisted of the medication nurses but also involved charge nurses as well.

Staff training was provided by our staff development coordinator. All licensed staff (RNs and LPNs) from all shifts received training. Training lasted for 1 week and was conducted at the Medicare Nurse's Station in an informal format. In summary, the content of the inservice was simple and brief. These devices are being installed to make the job easier and safer for licensed staff. The devices will be located on the wall next to

the sink in each resident room. The goal is that staff will deposit each sharps item in the container in the room as opposed to carrying it a farther distance to the medication cart.

The committee discussed the criteria upon which we will evaluate the success of utilizing sharps disposal containers in each room. It was agreed that this criteria should be simple, clear and utilize both subjective and objective information. The objective information will be based on the number of episodes of needle sticks in the building one year ago during the months of February, March, April and May (2002) and the number of needle sticks that have occurred since these new devices were installed.

Subjective information is to be based on interviews with licensed staff and focus on the following questions:

1. Do you feel that the placement of the sharps disposal device in each room has produced a safer environment?
2. Do you feel that the placement of the sharps disposal device in each room is more convenient and therefore added to work productivity?
3. Do you feel that the placement of the sharps disposal device next to the sink increased the likelihood of better hand washing practices?
4. What problems or concerns do you have about the use of this new device?

2. Obtaining Information

It was agreed that such data should be gathered and compiled by May 28, 2003. The following is the summary of the data that was collected.

Objective Data

On the Medicare Unit during the months of February, March, April and May of 2002, there were a total of two episodes of needle sticks. In comparison, from April 1, 2003 to May 30, 2003, there have been 0 needle sticks.

Subjective Data

The subjective information revealed that it was the unanimous opinion of the group that having the sharps containers in each room is far more convenient and therefore, added to productivity. There was some disagreement as to whether the placement of these devices made a safer environment. Four of the nursing staff stated that since these containers are top loading and mounted on the wall, it is difficult if a nurse is short to place a syringe in the receptacle. There is also some concern as to whether a syringe could fall off the top of the loading area and therefore, create another type of hazard. It should be noted that there has not been a needle stick episode resulting from such an episode. All nurses reported that the location of the container next to the sink led to better hand washing. An

additional concern voiced by all nursing staff was the inconsistency of having the sharps containers emptied when full. It was the understanding by all nurses that the house keeping staff would be the people responsible for emptying the containers. Another observation and concern that was raised was that we have begun to utilize only safety sharp devices in the facility. Therefore, all syringes, lancets and IV kits are equipped with a protective sheath. The episodes where needle sticks have occurred have been a result of a nurse giving an injection to a resident, the resident pulling away and the nurse accidentally sticking her/himself. Therefore to date, needle sticks have not occurred based on the inappropriate disposal of a sharp or a needle stick occurring in the transportation of the sharp to the disposal device but rather, during the actual use of the sharp. Therefore, where the placement of the sharps container in each room is convenient, it may not lead to a safer environment.

It was felt that the evaluation process provided sufficient information and new insight as to the value of this device.

3. Recommendations

1. Consult with the Director of House Keeping and reinforce a consistent schedule to empty the sharps containers.
2. Consult with the Administrator and the Director of Maintenance about the feasibility of lowering the sharps containers.

4. Next Steps

1. Determine the cost of purchasing sharps containers for all other resident rooms in the facility.
2. Compare the benefit of the convenience and improved hand washing to this cost.
3. Make a determination whether utilizing this device throughout the facility is cost effective.

5. Lessons Learned

At the beginning of this study, the committee was in total agreement as to the cause of needle sticks and felt that episode frequency was based on the actual location of the sharps disposal device. Since the study was begun, new safety devices (sheath protected sharps) were introduced which affected the eventual outcome of this study. The device continues to play a role in this eventual outcome but, not the only role. At this time, the device is being evaluated on different criteria (convenience versus safety.)

My advice to other facilities is to continue to be aware of other devices being introduced into the study which may effect the eventual outcome.

ATTACHMENT A

<u>Type of Staff</u>	<u>Hours Spent of Phase IV</u>
Management	2
Administrative	2.5
Front-line	6
Total	<u>10.5</u>

Other, non-labor items:

18 sharps disposal